

providing an organic solvent; and
mixing the inorganic metal salt solution and the organic solvent in proportions so that the desired metal salt concentration and the desired ratio of organic solvent to water are achieved.

3. (Amended) The method of claim 19, further comprising the step of neutralizing the solution after the incubation.

4. (Amended) The method of claim 19, further comprising the step of adding a dispersant to the solution.

7. (Amended) The method of claim 19, wherein the inorganic metal salt contains a metal selected from the group consisting of aluminum, hafnium, silicon, zirconium, titanium, lanthanum, germanium, tantalum, and combinations thereof.

8. (Amended) The method of claim 19, wherein the organic solvent is selected from the group consisting of methanol, ethanol, isopropanol, n-propanol, tert butyl alcohol, n-butanol, acetone, and glycerol.

9. (Amended) The method of claim 19, wherein the concentration of inorganic metal salt ranges from about 0.005 M to about 0.5 M.

12. (Amended) The method of claim 19, wherein the ratio of organic solvent to water ranges from about 1/1 to about 5/1.

16. (Amended) The method of claim 19, wherein a sol is produced.

17. (Amended) The method of claim 19, wherein the ratio of organic solvent to water ranges from about 1/1 to about 2/1 and a gel is produced.

18. (Amended) The method of claim 19, wherein monodispersed particles are produced.